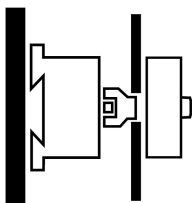
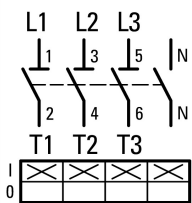




Switch-disconnector, 4 pole, 160 A, With red rotary handle and yellow locking ring, rear mounting, with 400 mm metal shaft

Part no. DMM-160/4/M4/P-R
Catalog No. 6094969
EL-Nummer (Norway) 1417206

Delivery program

Product range			Switch-disconnector Main switch maintenance switch
Part group reference			DMM
Stop Function			Emergency switching off function
Information about equipment supplied			With red rotary handle and yellow locking ring
Notes			auxiliary contact fitted by user.
Number of poles			With metal shaft for a control panel depth of 400 mm
			4 pole
Auxiliary contacts			
		N/O	0
		N/C	0
Degree of Protection			IP20
Design			rear mounting
			
Contact sequence			
Motor rating AC-23A, 50 - 60 Hz			
400 V	P	kW	80
Rated uninterrupted current	I _u	A	160
Note on rated uninterrupted current I _u			Rated uninterrupted current I _u is specified for max. cross-section.

Technical data

General

Standards			IEC/EN 60947, VDE 0660, IEC/EN 60204 Switch-disconnector according to IEC/EN 60947-3
Certifications			CE, RoHs, KEMA, EAC, Lloyd's
Ambient temperature			
Operation	θ	°C	-25 - +60
Storage	θ	°C	-40 - +80
Overvoltage category/pollution degree			III/3
Rated impulse withstand voltage	U _{imp}	kV	6
Rated insulation voltage	U _i	V	1000
Mounting position			As required

Contacts

Mechanical variables			
Number of poles			4 pole
Auxiliary contacts			
		N/O	0
		N/C	0
Electrical characteristics			
Rated operational voltage	U _e	V AC	690
Rated uninterrupted current	I _u	A	160
Note on rated uninterrupted current I _u			Rated uninterrupted current I _u is specified for max. cross-section.
Short-circuit rating			
fuse			160
Rated conditional short-circuit current	I _q	kA	415 V: 30 690 V: 50
Breaking current		kA	13.5
max. let-through energy		kA ² s	86,9
Rated short-time withstand current (1 s current)	I _{cw}	A _{rms}	2500
Note on rated short-time withstand current I _{cw}			Current for a time of 1 second
Heat dissipation per pole, current-dependent	P _{vid}	W	7.4

Switching capacity

Rated breaking capacity cos φ to IEC 60947-3		A	
400/415 V		A	1080
500 V		A	528
690 V		A	336
Safe isolation to EN 61140			
Current heat loss per contact at I _e		W	7.4
Lifespan, mechanical	Operations		10000
AC			
AC-21A			
Rated operational current switch			
400 V 415 V	I _e	A	160
500 V	I _e	A	160
690 V	I _e	A	160
AC-22A			
Rated operational current switch			
400 V 415 V	I _e	A	160
500 V	I _e	A	160
690 V	I _e	A	160
AC-23A			
Rated operational current switch			
400 V 415 V	I _e	A	160
500 V	I _e	A	66
690 V	I _e	A	42
Motor rating AC-23A, 50 - 60 Hz	P	kW	
400 V 415 V	P	kW	80
500 V	P	kW	45
690 V	P	kW	37

Terminal capacities

Flexible with ferrules to DIN 46228		mm ²	
flexible		mm ²	6 - 70
Stripping length		mm	21
Tightening torque for terminal screw		Nm	7

Technical safety parameters:

Notes			B10 _d values as per EN ISO 13849-1, table C1
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Design verification as per IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	I _n	A	160
Heat dissipation per pole, current-dependent	P _{vid}	W	7.4
Equipment heat dissipation, current-dependent	P _{vid}	W	0
Static heat dissipation, non-current-dependent	P _{vs}	W	0
Heat dissipation capacity	P _{diss}	W	0
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	40
IEC/EN 61439 design verification			
10.2 Strength of materials and parts			
10.2.2 Corrosion resistance			Meets the product standard's requirements.
10.2.3.1 Verification of thermal stability of enclosures			Meets the product standard's requirements.
10.2.3.2 Verification of resistance of insulating materials to normal heat			Meets the product standard's requirements.
10.2.3.3 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effects			Meets the product standard's requirements.
10.2.4 Resistance to ultra-violet (UV) radiation			Meets the product standard's requirements.
10.2.5 Lifting			Does not apply, since the entire switchgear needs to be evaluated.
10.2.6 Mechanical impact			Does not apply, since the entire switchgear needs to be evaluated.
10.2.7 Inscriptions			Meets the product standard's requirements.
10.3 Degree of protection of ASSEMBLIES			Does not apply, since the entire switchgear needs to be evaluated.
10.4 Clearances and creepage distances			Meets the product standard's requirements.
10.5 Protection against electric shock			Does not apply, since the entire switchgear needs to be evaluated.
10.6 Incorporation of switching devices and components			Does not apply, since the entire switchgear needs to be evaluated.
10.7 Internal electrical circuits and connections			Is the panel builder's responsibility.
10.8 Connections for external conductors			Is the panel builder's responsibility.
10.9 Insulation properties			
10.9.2 Power-frequency electric strength			Is the panel builder's responsibility.
10.9.3 Impulse withstand voltage			Is the panel builder's responsibility.
10.9.4 Testing of enclosures made of insulating material			Is the panel builder's responsibility.
10.10 Temperature rise			The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices.
10.11 Short-circuit rating			Is the panel builder's responsibility. The specifications for the switchgear must be observed.
10.12 Electromagnetic compatibility			Is the panel builder's responsibility. The specifications for the switchgear must be observed.
10.13 Mechanical function			The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.

Technical data ETIM 7.0

Low-voltage industrial components (EG000017) / Switch disconnecter (EC000216)			
Electric engineering, automation, process control engineering / Low-voltage switch technology / Off-load switch, circuit breaker, control switch / Switch disconnecter (ec1@ss10.0.1-27-37-14-03 [AKF060013])			
Version as main switch			Yes
Version as maintenance-/service switch			Yes
Version as safety switch			Yes
Version as emergency stop installation			Yes
Version as reversing switch			No
Number of switches			1
Max. rated operation voltage U _e AC		V	690
Rated operating voltage		V	690 - 690
Rated permanent current I _u		A	160
Rated permanent current at AC-23, 400 V		A	160
Rated permanent current at AC-21, 400 V		A	160
Rated operation power at AC-3, 400 V		kW	0
Rated short-time withstand current I _{cw}		kA	2.5
Rated operation power at AC-23, 400 V		kW	75

Switching power at 400 V	kW	0
Conditioned rated short-circuit current I _q	kA	50
Number of poles		4
Number of auxiliary contacts as normally closed contact		0
Number of auxiliary contacts as normally open contact		0
Number of auxiliary contacts as change-over contact		0
Motor drive optional		No
Motor drive integrated		No
Voltage release optional		No
Device construction		Built-in device fixed built-in technique
Suitable for ground mounting		Yes
Suitable for front mounting 4-hole		No
Suitable for front mounting centre		No
Suitable for distribution board installation		No
Suitable for intermediate mounting		Yes
Colour control element		Red
Type of control element		Toggle
Interlockable		Yes
Type of electrical connection of main circuit		Screw connection
Degree of protection (IP), front side		IP20
Degree of protection (NEMA)		Other

Assets (links)

Declaration of CE Conformity

00003043

Instruction Leaflets

IL008025ZU2018_05